REMARKS

The claims are amended for greater clarity and U.S. formalities. The claimed machine (e.g., a car) comprises the construction member (e.g., the car door). The two coordinate systems are now "first" and "second" systems with data sets exemplified in the disclosure by D1 and D2. The specification explains (paragraph 0227 from PAIR) that "The coordinate system Ca is provided based on the car ... [continuing in paragraph 0229] The converting section 29 converts the data D1 based on the coordinate system Ca to a second set of data D2 based on a coordinate system Cb (see FIG. 2) associated with each construction member. ... The illustrated coordinate system Cb is based on the door trim panel 2. That is the second set of data D2 includes the positions and the shape of the electric circuit 10. ... [continuing in paragraph[0231] Thus, the converting section 29 converts the data D1 based on the coordinate system Ca to the second set of data D2 based on the coordinate system Cb".

That the two coordinate systems do not coincide is evident from the different names given to their x, y, and z coordinates, and from statements in the specification such as (paragraph [0227]) "The origin of the coordinate system Ca at which axes Xa, Ya, Za intersect one another can be located at any position of the car 1" (paragraph [0227]) while "coordinate system Cb is based on the door trim panel 2" (paragraph [0229]). Fig. 2 shows system Cb with an origin (not labeled) inside the door and with the z-axis horizontal, while Fig. 18 shows system Ca with an origin centered inside the passenger compartment and with the z-axis vertical.

The new claims are similarly supported. The new claims are patentable for the reasons below.

In response to the outstanding Office Action:

(1) Independent claims 1 and 11 were rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,746,844 (Sterett '844) in combination with JP 10-226803 (JP '803). This rejection is respectfully traversed.

The Examiner applies JP '803 for disclosing conversion of three-dimensional data from one coordinate system to another. The Examiner cites paragraphs 0010 and 0011 of JP '803 and asserts that the reference discloses "that the three-dimensional data can be set in a storing means (60) or calculated and then compared to the monitored three-dimensional data and adjusted to the desired values" (page 3, last full paragraph).

JP '803 discloses built-up three-dimensional structures such as a pyramid (Fig. 4), composed of deposited metal particle. JP '803 discloses a detecting means 70 that monitors the object as it is being constructed, and a data-comparing means 80 compares the measurements from the means 70 with the stored shape data 60 and, if the shape is not according to the stored data, modification of the metal deposition (JP '803, page 14, lines 3-16). In applied paragraph 0011, starting on the same page 14, JP '803 explains in more detail about the deposition and correction.

However, there is no disclosure of **two different coordinate systems**, nor is there any disclosure of any **transformation** from one system to another system. JP '803 describes nothing more than simple feedback, and the Examiner asserts only this; the Examiner does not mention or assert the two coordinate systems that are claimed.

(2) Independent claims 1 and 11 were rejected under 35 U.S.C. §103(a) as obvious over Sterett '844 in combination with JP '803 and Orme-Marmerelis et al., US 6,520,402. This rejection is respectfully traversed.

Orme-Marmerelis is applied for disclosing "high speed direct writing with metallic microspheres" rather than coordinate systems. This reference does not remedy the deficiencies of the other two references noted above.

It is noted that reliance on this third reference in the second rejection, which is otherwise identical to the first, implies that the first rejection is inadequate, for lacking the subject matter of Orme-Marmerelis.

(3) Dependent claims 7, 8, 17, and 18 are rejected over the same references in view of Pan, which is applied for an interconnect, and not for coordinates or transformations.

(4) Dependent claims 51-56 are rejected (on page 6) over the same references in view of JP 11-040937, also applied in the previous rejection. JP '937 is applied for the use of compressed air for jetting the metal, and not for coordinate systems or transformations.

(5) On page 7, in his Response to Arguments, the Examiner addresses the Applicant's argument ("B" on pages 10 and 11 of the Amendment of April 16, 2009), which was based on of coordinate transformation. The Examiner responds, "The Examiner agrees in part. While the only dimension that is adjusted is the Z-direction, the X-direction and Y-direction are also being changed as the nozzle is moved." With respect, the Examiner has confused the coordinates at which the metal is to be deposited with the instantaneous position of the nozzle.
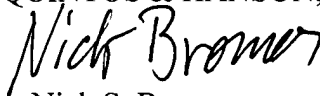
(6) The Examiner also states (page 8, line 4), "the claims do not require the X1, Y1, Z1 and the X2, Y2, Z2 values to be different." However, the amended claims do. Moreover, it cannot be assumed that, because the two coordinate system *can* have the same origin a claim, that they *do*; that would be adding a limitation, namely, that two unrelated things are in the same place.

(7) In the second paragraph on page 8, the Examiner again states that the disclosure of relative motion between the nozzle and the workpiece anticipates a change of coordinate system. However, motion does not change the coordinate *system*. When a person walks over an area which has been mapped, it does not changes the map's projection (e.g., from Mercator to Lambert) and it does not change the coordinate system.

In view of the aforementioned amendments and accompanying remarks, the application is submitted to be in condition for allowance, which action is requested.

Respectfully submitted,

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